

Amendments to the Specification:

Please replace the paragraph at page 1, beginning at line 5 with the following amended paragraph:

Orally administrated dosage forms are ~~is~~ in most cases, the preferred way of medication. However, numerous drugs administrated per-os are absorbed efficiently only in the upper gastrointestinal tract, namely, the stomach and the proximal section of the small intestine. The passage of drugs from the stomach to the intestine is normally too fast (usually, between one or two hours), strongly limiting their bioavailability. Since the residence time of drug at the site of optimal absorption largely determines its bioavailability, it is apparent ~~what~~ that prolonging the retention of the drug-containing device in the proximal gastrointestinal tract is of the utmost importance. Delivery of a drug at a constant rate from the gastric device could assist in maintaining constant level of the released drug and overcome the blood and tissue variable concentration due to diurnal variation in the intake of the drug by the patients. Long-term gastric retention device could ease medical treatment and improve patient's compliance.

Please replace the paragraph at page 1, beginning at line 23 with the following amended paragraph:

Various approaches to achieve gastric retention of controlled release dosage forms were developed over the years. However, in spite of the diversity of approaches a limited number of devices actually reach the clinics, and those meet only limited success and fail to attain residence time longer ~~then~~ than 24 hours.

Please replace the paragraph at page 3, beginning at line 4 with the following amended paragraph:

It is accepted almost consensually, that only solid particles smaller than 2mm are able to pass the pylorus. This is mainly due to the fact that the pyloric sphincter closes, as the peristaltic wave approaches the terminal antrum, and therefore, larger particles will remain in the stomach until they are further reduced in size. It is the combined mechanical effect of this grinding process and the acid-peptic digestive attack that reduces solid food into ~~chymouslike~~ chymous-like substance, able to outflow into the small intestine. While there is no consensus about the size dependence of gastric emptying by the MMC, the data ~~is~~ in the literature suggest that, for oral dosage forms to remain in the stomach in the fasted state, their size has to be larger than 15mm. The difficulties to develop devices in that size range is further enhanced, due to the variability in their response time.

Please replace the paragraph at page 4, beginning at line 12 with the following amended paragraph:

3. Hydrodynamic balanced systems contain mainly a gel forming hydrophilic polymer, which, upon contact with the gastric fluid, ~~from~~ form a gelatinous shell, which releases the drug. Its buoyancy is ensured by its dry or hydrophobic core.

Please replace the paragraph at page 4, beginning at line 17 with the following amended paragraph:

The main disadvantage of floating systems stems from their short intragastric residence time (usually less ~~then~~ than a few hours). These systems do exhibit[[,]] some

improvement in the absorption of various agents in the upper GI tract, but do not achieve longer gastric retention. In addition, their action is dependent on the amount of food and water in the stomach, which may cause ~~non-uniform~~ non-uniform performance of these systems.

Please replace the paragraph at page 5, beginning at line 12 with the following amended paragraph:

The main problem of the mucoadhesive devices is their tendency to bind almost to any other material they come in contact with - i.e. gelatin capsules, proteins and free mucous - in the gastric fluid. Another major obstacle is the pH-dependent bio-adhesiveness of some of these materials. Higher than normal gastric pH levels, reduce dramatically the adhesion strength of these systems, and therefore their effectivity.

Please replace the paragraph at page 5, beginning at line 23 with the following amended paragraph:

Small magnet-containing tablets attached to a drug releasing system, are prevented from leaving the stomach, by an extra-corporeal magnet, placed over the stomach. Even ~~through~~ though various studies reported some success, the viability of these systems is in doubt, because of the need to carry an extra-corporeal magnet and to place it very accurately, in order to obtain the desired results. New, more convenient ways to apply a magnetic field have to be found to improve this concept.

Please replace the paragraph at page 6, beginning at line 3 with the following amended paragraph:

2. Osmotic ~~devises~~ devices that contain salts or sugars, surrounded by a semi permeable membrane.

Please replace the paragraph at page 6, beginning at line 13 with the following amended paragraph:

In addition, the ability to swell to the desired size and the degradation process still pose a substantial challenge to the feasibility ~~to~~ of the swelling systems. Superporous hydrogels have dealt with some of these problems with some degree of success, and are discussed later. The low temperature boiling gas systems are very sensitive to temperature fluctuations, resulting in determinant events such as premature opening in the esophagus.

Please replace the paragraph at page 7, beginning at line 31 with the following amended paragraph:

Drug release from such systems is based upon the fact that the dissolution medium surrounding the matrix device initially dissolves and leaches out drug from the surfaces of the device, but ~~at~~ as this process continues with time, the dissolution medium travels further into the matrix and the drug then has to dissolve into the medium and then leave via diffusion along the porous water filled paths, created by the gradual ingress of the dissolution medium. Hence, before the tablet is placed in the dissolution medium, there are relatively few porous paths within matrix. Drug release rates would therefore be expected to change with drug solubility and drug loading.

Please delete the heading at page 8, line 8 and insert in its place the new heading:

Hydrophilic matrices

Please replace the paragraph at page 8, beginning at line 9 with the following amended paragraph:

Hydrophilic systems usually consist of a significant amount of drug dispersed in and compressed together with a ~~hydrophyllic~~ hydrophilic hydrogel forming polymer and may be prepared together with either a soluble or insoluble filler. When these systems are placed in the dissolution medium, ~~Dissolution~~ dissolution occurs by a process that is a composite of two phenomena: in the early stages of dissolution, polymer (and) drug dissolution begins, the polymer dissolving due to chain disentanglement or hydrogel formation as a result of cross-linking. The rate constant for drug release from a swellable matrix is a function of the diffusion coefficient of the drug matrix, which depends on the free volume of water.

Please replace the paragraph at page 8, beginning at line 22 with the following amended paragraph:

Gellan gum, first discovered in 1978, is produced by the microorganism *Pseudomonas elodea*. The constituent sugars of gellan gum are glucose, glucuronic acid and ramnose in the molar ratio of 2: 1: 1. These are linked together, as shown in Figure 1, to give a primary structure comprising of a linear tetrasacharide repeating unit. In gellan gum's common form (also referred to as the high acyl form) two low acyl substituents, acetate and glycerate, are present. Both constituents are located on the same glucose residue, and on average, there is one glycerate per repeating unit and one acetate per every two repeating units. In low acyl gellan gum,

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the acyl groups are removed completely.

Please replace the paragraph at page 9, beginning at line 20 with the following amended paragraph:

It has surprisingly been found that ~~Gellan~~ gellan gum has the ability to form fast swellable gels when combined with other hydrophilic polymers and to form strong gels when adding the ~~Gellan~~ gellan gum and hydrophilic polymer combination to the gastric environment. Superior synergistic effects between the Gellan gum and the polymers were found when the hydrophilic polymers had homopolysaccharide backbone. Non-limiting examples of hydrophilic polymers are: guar gum, heteropolysaccharides, Cannelose, hydroxypropylmethylcellulose (HPMC), carboxymethylcellulose sodium, and ~~Xantan~~ xanthan gum.